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| **COVERING BOTH GLE’S AND CCSS**  **(State correlation is not a perfect match-What makes them the same….what makes them different?)**  4.2.5 Make predictions from scatter plots by using or estimating a line-of-best-fit.  **CC.8.SP.1** Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.  **CC.8.SP.2** Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.  4.2.6 Make observations and inferences and evaluate hypotheses based on collected and/or experimental data.  **CC.8.SP.1** Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.  **CC.8.SP.4** Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores? |
| **COVERING BOTH GLE’S AND CCSS AND SCIENCE INTEGRATION – N/A** |
| **GLE’s but not CCSS**  4.1.1 Collect, organize and display data using an appropriate representation (including box-and-whisker plots, stem and leaf plots, scatter plots, histograms) based on the size and type of data set and purpose for its use.  **CC.6.SP.4** Display numerical data in plots on a number line, including dot plots, histograms, and box plots.  4.1.2 Use appropriate representations to compare and analyze large data sets.  4.1.3 Identify where measures of central tendency and spread are found in graphical displays including box-and-whisker plots, stem and leaf plots, scatter plots and histograms.  **CC.7.SP.3** Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.  4.2.4 Use descriptive statistics, including range, mode, median, mean, quartiles and outliers to describe data and support conclusions in writing.  **CC.6.SP.5** Summarize and describe distributions. Summarize numerical data sets in relation to their context, such as by:  **a.** Reporting the number of observations.  **b.** Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.  **c.** Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data was gathered.  **d.** Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data was gathered.  4.2.7 Describe in writing the accuracy of statistical claims, e.g., 4 out of 5 dentists prefer Brand X toothpaste, by recognizing when a sample is biased or when data is misrepresented.  4.2.8 Explain the effects of sample size and sampling techniques (convenience sampling, voluntary response sampling, systematic sampling and random sampling) on statistical claims.  **CC.7.SP.1** Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences. |
| **CCSS but not GLE’s – None** |